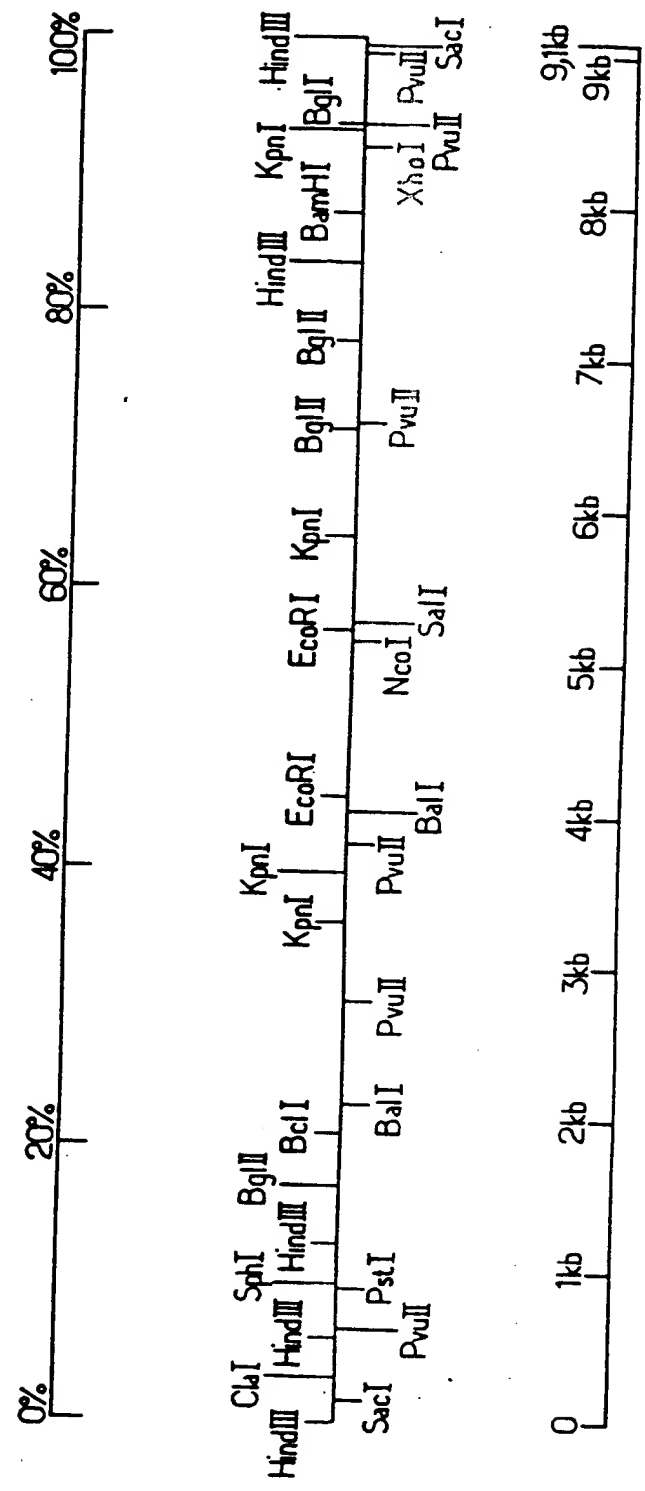


FIG.1.



077953060

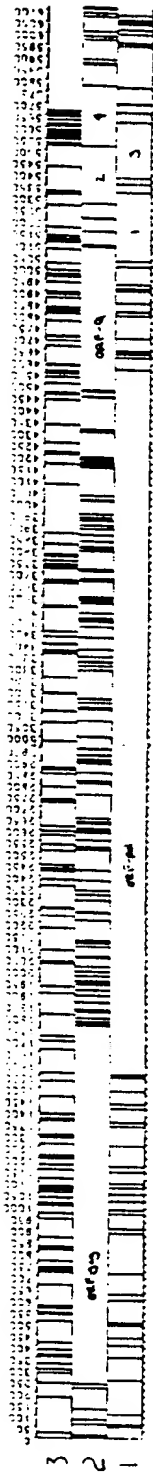


Fig. 2

111070
077953060

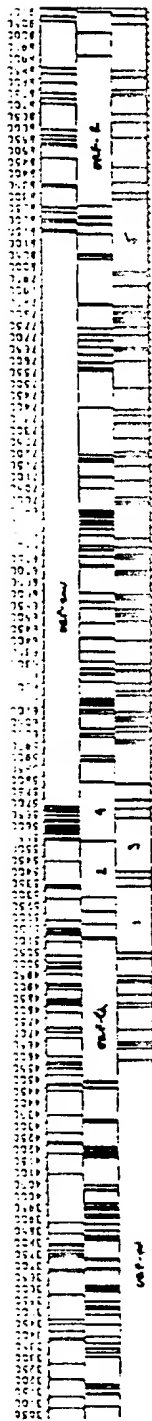


Fig. 3

4.3

27

527

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

Fig 6

0 4 F H L K T A V Q " A V F I H N F K M C C I C C Y S A C J R I V D I A T O

[illegible]

I O T K E L O K I T K I O N F e v y v y r D S B D P L H C K G P A K L L K N G E G
 Y K L K N Y K N L O K N K S F S C F L I C T A E I H F C K Q O S S G N K V A R G
 I N R I F K T K N Y K S A F S C L L O C O O R S L E R I S K A P L E R A R G
 A T A A C A I A E G A T I A C A A A A A T T C C G G T T A T T A C G G C A C A G A C T C T T G G A A G C C A C G A A G C T C T C T G G A A G C T G A A G C
 330 340 350 360 370 380 390 400 410 420 430 440

[illegible]

10 N T L A F S K T P T V C F R I S C A G W L O T S L O K P S S H R F R S T M I
 L I M C K S L V M H Y V C S A G A F Y R L S L O K P S S H R F R S T M I
 J T T G C A C G A A T T A G T A A A C C A T A T G T T C G G A A C C T A G G C A C T A T A G A C A T C C A C T A G A C C T A C C A G A T A A C T C A G A C A C A T
 4570 4580 4590 4600 4610 4620 4630 4640 4650 4660 4670 4680

P T G C C A I G U N T I L C S A T R G K Q T L A S C S C G L M M F E K F I O H
 A L V L V T I C S A T R G K Q T L A S C S C G L M M F E K F I O H
 H G C A L V L V T I C S A T R G K Q T L A S C S C G L M M F E K F I O H
 C C C A T A G C C G T T A G A T T G C A T A T T A C A C A T T G C C A T T C C A T T A C C A C A
 4760 4770 4780 4790 4800

[illegible]

2
 G H I J K L P Q S T U V W X Y Z
 D I E F C A G B J L M N O P Q R S T U V W X Y Z
 A U L M A T A C K V A G L A C T F R A C T I G U L M A C A U A T A T A A T A A C C A A A A A G A T A A A G A C C A C C T T T C T A C T A G C A A C C A G C A A C C A G C A C C A G C A C C

82

Sample	Time (min)	Wavelength (nm)	Concentration (g/L)	Temperature (°C)	Refractive Index (n _D ²⁰)	Optical Density (OD)	Extinction Coefficient (ε)
1	10	210	0.1	20	1.33	0.15	1500
2	20	210	0.2	20	1.33	0.30	1500
3	30	210	0.3	20	1.33	0.45	1500
4	40	210	0.4	20	1.33	0.60	1500
5	50	210	0.5	20	1.33	0.75	1500
6	60	210	0.6	20	1.33	0.90	1500
7	70	210	0.7	20	1.33	1.05	1500
8	80	210	0.8	20	1.33	1.20	1500
9	90	210	0.9	20	1.33	1.35	1500
10	100	210	1.0	20	1.33	1.50	1500

Fig 6

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	5
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car

→ start on R - R

→ start on R - R

719 15

11/3/1960

V * G E U E * E P V U P R L E P W K H P G S O P I
T F E S K W S U * I L D * S P G S I O E V S L
CAACAGAGGAGAGCAAGAAATGCAUCCAGTAGATCTAGACTAGAGCCCTGGAAGCATCCAGGAAGTCAGCCTA
5240 5300 5310 5320 5330 5340 5350

P S L F H N K S L R H L L W O E E A E T A T K T S
O V C F T T K A L G I S Y G R K K R R R R R P P
K F V S O O K P * A S P M A G R S G D S D E D L
CCAAGTTTGTTCACAACAAAAGCCTTAGGCATCTCCTATGGCAGGAAGAAGCGGAGACAGCGAGGAAGACCTC
5410 5420 5430 5440 5450 5460 5470

S T C N A T Y T N S N S S I S S S N N N S N S C V
V H V M O P I U I A I A L V V A I I I A I V V A
Y * C N L Y K * J * G H * * O * * O * L C
AGTACATGTAATGCAACCTATACAAATAGCAATAGCAGCATTAGTAGCAATAATAATAGCAATAGTTGTGTG
5530 5540 5550 5560 5570 5580 5590

I * U V N * * T N R K S R R O W O * E * R R N I S
I D K L I O R L I E R A E D S G N E S E G E I S A
* T G * L I D * * K E O K T V A M R V K E K Y J
AATAGACAGGTTAATTGATAGACTAATAGAAAAGAGCAGAAGACAGTGGCAATGAGAGTGAAGGAGAAATATCAGC
5650 5660 5670 5680 5690 5700 5710

Y * * S V V L O K N C G S O S I M G Y L C G F K O
I D D L * C Y R K I V G H S L L W G T C V E G S N
L M I C S A T E K L W V T V Y Y G V P V H K E A
TATTGATGATCTGTAGTGCTACAGAAAAATTGTGGGTACAGTCTATTATGGGGTACCTGTGTGGAAGGAGCA
5770 5780 5790 5800 5810 5820 5830

R Y I * E G P H M P V Y P U T P T H K K * Y * *
G T * C L G H T C L C T H R P O P T * S S I G V
V H N V * A T H A C V P T O P N P O E V V L V
AGGTACATAATGTTTGGGCCACATGCGTGTACCCACAGACCCCAACCCACAAGAAGTAGTATTGGTAAATG
5870 5900 5910 5920 5930 5940 5950

C M R I * S V Y G I K A * S H V * N * P H S V L V
A * G Y N U F M G S K P K A M C K I N P T L C * F
H E D I I S L * D O S L K P C V K L T P L C V S
TGCATGAGGATAGAAATCAGTTTATGGGATCAAAAGCCTAAAGCCATGTCTAAAATTAACCCCACTCTGTGTTAGT
5910 6020 6030 6040 6050 6060 6070

P I V V A G K * * W R K E R * K T A L S I S A G
Y Q * * K G N D D G E R R O K K I L F O Y O H K
T N S S S G E M M E K G E I K H C S F V I S T
ATACCAATAGTAGTACCGGGGAAATGATGATGGAGAAAGGAGAGATAAAAAAAGTCTCTTTCAATATCAGGACAA
6130 6140 6150 6160 6170 6180 6190

L I * Y Q * I M I L P A I R * U V V T P O S L H R
* Y N T H R * * Y Y O L Y V O K L * H L S H Y T O
U I I P I D V D T T S Y T L T S C N T S V I T O
TGCATATAACCAATAGATAATGATACTACCAGCTATACGTTACAAAGTTGTAACACCTCAGTCATTACAGG
6250 6260 6270 6280 6290 6300 6310

P * L V L V F * N V I I R * S M E O D H V O M S A

12/14

G S O P K T A C T T C Y C K K C C F H C
E V S L K L L V P L A I V K S V A F I A
AGGAAGTCAGCCTAAACTGCTTGACCATTGCTATTGTAAAAAGTTGCTTTTCATTG
5350 5360 5370 5380 5390 5400

A T K T S S R O S D S S S F S I K A V S
R R R P P Q G S G T H C V S L S K O * V
S D E D L L K A V R L I K F L Y O S S K
AGCGACGAAGACCTCCTCAAGGCAGTCAGACTCATCAAGTTTCTCTATCAAAGCAGTAAGT
5470 5480 5490 5500 5510 5520

S N S C V V H S N H R I * E N I K T K K
A I V V W S I V I E Y R K I L R O R K
* O * L C G P * * S * N I G K Y * O K E K
TAGCAATAGTTGTGTGGTCCATAGTAATCATAGAATATAGGAAAATATTAAGACAAAGAAA
5590 5600 5610 5620 5630 5640

R R N I S T C G D G G G N G A P C S L G
G E I S A L V E M G V E M G H H A P W O
K E K Y O H L W R W G W K W G T M L L G I
AGGAGAAATATCAGCACTTGTGGAGATGGGGCTGGAAATGGGGCACCATGCTCCTTGGGA
5710 5720 5730 5740 5750 5760

C G F K O P P L Y F V H O M L K H M I O
V E G S N H H S I L C I O C * S I * Y R
V W K E A T T T L F C A S D A K A Y D T E
TGTGGAAGGAAGCAACCACCACTCTATTTTGTGCATCAGATGCTAAAGCATATGATACAG
5830 5840 5850 5860 5870 5880

* Y * * M * O K I L T C G K M T W * N R
S I G K C D R K F * H V E K * H G R T D
V V L V N V T E N F N M * K N O M V E O M
TAGTATTGTAATGTGACAGAAAAATTTAATCATGTGCAAAAAATGACATGGTAGAACAGA
5950 5960 5970 5980 5990 6000

H S V L V * S A L T W G * L L T P I V V
T L C * F K V H * F G E C Y * Y O * *
* L C V S L K C T D L G N A T N T N S S N
CACCTGTGTAGTTTAAAGTGCACCTGATTTGGCGATGCTACTAATACCAATAGTAGTA
6070 6080 6090 6100 6110 6120

S H S A O A * E V R C O K N M H F F I N
O Y O H K H K R * G A E R I C I F L * T
= N H I S T S I R G K V C K E Y A F F Y K L
TCAATATCAGCACAAGCATAAGAGGTAAGGTCCAGAAAGAAATATGCATTTTTTATAAAC
6170 6200 6210 6220 6230 6240

O S L H R P V O R Y P L S O F P Y I I V
S H Y T G L S K G I L * A N S H T L L C
5) V I T O A C P K V S F E P I P I H Y C A
CAGTCATTACAGGCCTGTCCAAAGGTATCCTTTGAGCCAATTCCCATACATTATTGTC
6310 6320 6330 6340 6350 6360

V O * S A O Y N V H * F L G C * Y O L N

Fig 15

17/953060

P G W F C D S K Y * | * * J V J W N R T M Y K C G
P A G F A I L K C N N K T F N G T G P C T N V S
CCCCGGCTGGTTTTGCGATTCTAAAAATCTAATAAGACGTTCAATGGACAGGACCATGTACAAATGTCAG
6370 6380 6390 6400 6410 6420 6430

C C * M A V * O K K R * * L D L P I S O T M L K I
A V E N G S S S R R R G S N * I C O F M R Q C * N
L L N G S L A E E E V V I R S A N E T D N A K T
TCTGTTGAATGGCAGTCTAGCAGAAGAAGAGGTAGTAATTAGATCTCCCAATTCACAGACAATGCTAAAAC
6490 6500 6510 6520 6530 6540 6550

P T T I G E K V S V S R G D U G E H L L O * E K *
U G J Y K K K Y P Y P E G T R E S I C Y N R K N
N N N T R K S I R I O R G P G R A F V T I G K I
CCAACAACAATACAAGAAAAAGTATCCGTATCCAGGGGACGAGGACGATTGTTACATAGGAAAAATA
6610 6620 6630 6640 6650 6660 6670

M P L * N R * L A N * E N N L E I I K O * S L S A
C H F K T D S * Q I K R T I K * * N N V L * A
A T L K Q I A S K L R E O F G N N K T I I F K Q
ATGCCACTTTAAACAGATAGCTAGCAAATTAAGAGAACAATTTGGAATAATAAAACAATAATCTTTAAGCAA
6730 6740 6750 6760 6770 6780 6790

I G N F S T V I O H N C L I V L G L I V L G V L *
K G I F L L * N S T T V * * Y L V * * Y L E Y *
G E F F Y C N S T Q L F N S T W F N S T * S T E
GAGGGGAATTTTCTACTGTAATTCACACAACCTGTTAATAGTACTTGGTTAATAGTACTTGGAGTACTGAA
6850 6860 6870 6880 6890 6900 6910

E * N N L * T C G R K * E K O C M P L P S A D K L
N K T I Y K H V A G S R K S N V C P S H Q R T N
I K O F I N M H O E V G K A M Y A P P I S G O I
GAATAAAACAATTTATAAACATGTGGCAGGAAGTAGGAAAAGCAATGTATGCCCTCCCATCAGCGSACAAAT
6970 6980 6990 7000 7010 7020 7030

I T T M G P R S S D L E E E I * G T I G E V N Y
* * O O W V R D L O T W R R Y E G O L E K * I
N N N N G S E I F R P G G G D M R O N W R S E L
GTAATAACAACAATGCTCCGAGATCTTCAGACCTGGAGGAGGAGATATGAGGCACAATTGGAGAAGTGAATTA
7090 7100 7110 7120 7130 7140 7150

P R Q R E E W C R E K K E O W E * E L C S L G S W
O G K E K S G A E R K K S S G N R S F V P W V L C
K A K R R V V Q R E K R A V G I G A L F L G F L
CCAAGCCAAGAGAAGAGTGGTGCAGAGACAAAAAGAGCAGTGGGAATAGGAGCTTTGTTCTTGGGTTCTTGC
7210 7220 7230 7240 7250 7260 7270

Y R P O N Y C L V * C S S R T I C * G L L R R N S
T G O T I I V W Y S A A A E D F A E G Y * G A T A
O A R O L L S G I Y O O Q N N L L R A I E A O O
TACAGGCAGACAATTATGCTGATAGTGCAGCAGCAGAACAATTTGCTGAGGGCTATTGAGGCCAACAGC
7330 7340 7350 7360 7370 7380 7390

E S A L U K O T * R I N S S W G F G V A L E N S F

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Fig. 16

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R T M Y K C G H S T M Y T N A S S I N S T
G P C T M V S T V O C T H G I R O V V S T U L
CAGGACCATGTACAAATGTCAGCACAGTACAAATGTACACATGGAATTAGGCCAGTAGTATCAACTCAAC
6420 6430 6440 6450 6460 6470 6480

P I S O T M L K P * * Y S * T V L * K L I V U D
H F H R O C * N H N S T A E P I L R N * L Y K T
CAATTCACAGACAATGCTAAACCATAATAGTACAGCTGAACCAATCTGTAGAAATTAATTGTACAAGAC
6540 6550 6560 6570 6580 6590 6600

F H L L Q * E K * E I * D K H I V T L V F O N G
S I C Y V P K N P K Y E T S T L * H * S K M E
A F V T I G K I G N * R Q A H C I S R A K W N
AGCATTGTGTACATAGGAAAAATAGGAAATATGAGACAAGCACATTTGTAAACATTAGTAGAGCAAAATGGA
6660 6670 6680 6690 6700 6710 6720

I K Q * S L S N P O E G T O K L * P T V L I V
* N V L * A I L R R G P R Y C N A O F * L W
M K T I I F K O S S G G O P E I V T H S F N C G
TAATAAAACAATAATCTTTAAGCAATCCTCAGGAGGGGACCCAGAAATTTGTAACGCACAGTTTAAATTGTC
6780 6790 6800 6810 6820 6830 6840

L I V L G V L K G O I T L K E V T O S M S H A
V * Y L E Y * R V K * H * R K * H V H T P M C
F N S T W S T E G S N V T E G S O T I T L P C R
TTTAATAGTACTGGAGTACTGAAGGGTCAATAACACTGAAGGAAGTGACACAATCACACTCCCATGCA
6900 6910 6920 6930 6940 6950 6960

P L P S A D K L D V H O I L G G C Y * Q E M V
C P S H O R T N * M F I K Y Y R A A I N K R W W
A P P I S G O I R C S S N I T G L L L T R D G G
TGGCCCTCCCATCAGCGGACAAATTAGATGTCATCAAAATATTACAGGCTGCTATTAACAAGAGATGGTG
7020 7030 7040 7050 7060 7070 7080

G T I G E V N Y I N I K * * K L N H * E * H P
E G O L E K * I I * I * S S K N * T I R S S T H
R O N W R S E L Y K Y K V V K I E P L G V A P T
CAGGGACAATTGGAGAAGTGAATTATATAAATATAAAGTAGTAAAAATTGAACCATTAGGAGTAGCACCCA
7140 7150 7160 7170 7180 7190 7200

E L C S L G S W E O J E A L * A H G O * R * R
R S F Y P W V L G S S R K H Y G R T V N D A D G
G A L F L G F L G A A G S T M G A R S M T L T V
AGGAGCTTTGTTCTTGGGTTCTTGGGAGCAGCAGGAAGCACTATGGGGCAGCGTCAATGACGCTGACGG
7260 7270 7280 7290 7300 7310 7320

* G L L R R N S I C C N S O S G A S S S S R O
A E G Y * G A T A S V A T H S L G H O A A P G K
L R A I E A O O H L L O L T V W G I K O L O A R
CTGAGGGCTATTGAGCGCAACAGCATCTGTTGCAACTCACAGTCTGGGGCATCAAGCAGCTCCAGGCAA
7380 7390 7400 7410 7420 7430 7440

G V A L E N S F A P L L C L G * L V G V I N L 36

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N P C C G K I P K G S T A P G D L G L L K K I H
I L A V E R Y L K D O U L L G I W G C S G K L I
GAATCCTGGCTGTGAAAGATACCTAAAGGATCAACAGCTCCTGGGGATTGGGGTTGCTCTGGAAAACAT
7450 7460 7470 7480 7490 7500 7510

M N R F G I T * P G H S G T E K L T I T O A * Y
G T D L E * H D L D G V G J R N * Q L H K L N T
E Q I W N N Y T W M E M D R E I N N Y T S L I H
TGGACAGATTGGAATAACATGACCTGGATGGAGTGGGACAGAGAAATTAACAATTACACAAGCTTAATACA
7570 7580 7590 7600 7610 7620 7630

N Y * N * I N G O V C S I G L T * S I G C G I *
I I G I R * M G K F V E L V * H V K L A V V Y K
L L E L D K W A S L W N W F N I T H W L W Y I K
AATTATTGGAATTAGATAAATGGGCAAGTTTGTGGAATTGCTTAACATAACAAATTGGCTGTGCTATATAAA
7690 7700 7710 7720 7730 7740 7750

L L Y F L * * I E L G R D I H H Y R F R P T S O
C C T F Y S E * S * A G I F T I I V S D P P P N
A V L S I V N R V R O G Y S P L S F O T H L P T
TTGCTGTACTTTCTATAGTGAATAGAGTTAGGCAGGGATATTCACCATTATCGTTTCAGACCCACCTCCCAAC
7810 7820 7830 7840 7850 7860 7870

R E T E T D P F D * * T D P * H L S G T I C G A
E R U P Q I H S I S E P I L S T Y L G R S A E P
R D R D R S I R L V N G S L A L I W D D L R S L
AGAGACAGAGACAGATCCATTGATTAGTGAACGGATCTTACCACTTATCTGGGACGATCTGCGGAGCCT
7930 7940 7950 7960 7970 7980 7990

T R I V E L L G R G H E A L K Y W N L L O Y
R G L W N F A D A G G G K P S N I G C I S Y S I
E D C G T S G T O G V G S P O I L V E S P T V L
ACGAGGATTGTGGAACCTCTGGGACGCGAGGGGGTGGGAAGCCCTCAAAATATTGGTGGAAATCTCCTACAGTATT
8050 8060 8070 8080 8090 8100 8110

A I A V A E G T D R V I E V V O G A C R A I R H
P * J * L R G Q I G L * K * Y K E L V E L F A T
H S S S * G D R * G Y S S T R S L * S Y S P H
GCCATAGCAGTACCTGAGGGGACAGATAGGTTATAGAAGTAGTACAGGAGCTTGTAGAGCTATTGCCACAT
8170 8180 8190 8200 8210 8220 8230

G W Q V V K K * C G H M A Y C K G K N E T S * A S
G G K W S K S S V V G W P T V R E R M R A E P
V A S G O K V V W L O G L L * G K E * O E L S O
GGGTGGCAAGTGGTCAAAAAGTAGTGTGCTTGGATGGCTACTGTAAGGGAAGAATGAGACGAGCTGAGCCAG
8290 8300 8310 8320 8330 8340 8350

S N H K * O Y S S Y O C C L C L A R S T R G G G G
A I T S S H T A A T N A A C A W L F A D E E E E
U S O V A I U O L P N L L V P G * K H K R R P P
AGCAATCACAAGTAGCAATACAGCAGCTACCAATGCTGCTTGTCCCTGGCTAGAGGACAGAGGAGGAGGAGG
8410 8420 8430 8440 8450 8460 8470

U G S C R S * P L F X R K G G T G

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K T H L H M C C A L E C * L E * * I S
G K L I C T T A V P W N A S W S N K L
TGGAAAACCTCATTTGCCACCACTGCTGTGCCCTTGGAAATGCTAGTTGGAGTAATAAATCTC
7510 7520 7530 7540 7550 7560

Q A * Y I P * L K N R K T S K K R M N K
K L N T F L N * R I A K P A R K E * T R
S L I H S L I E E S O V O Q E K N E O E
AAGCTTAATACATTCCTTAATTGAAGAATCGCAAAACCAGCAAGAAAAGAAATGAACAAG
7630 7640 7650 7660 7670 7680

C G I * K Y S * * * * E A W * V * E * F
V V Y K N I H N D S R R L G R F K N S F
W Y I K I F I M I V G G L V G L / R / I V F
GTGGTATATAAAAAATTCATAATGATAGTAGGAGGCTTGGTAGCTTTAAGAATAGTTT
7750 7760 7770 7780 7790 7800

T S O P R G D P T G P K E * K K K V E
P P P N P E G T R O A R R N R R R R W R
H L P T P R G P D R P E G I E E E G G E
CCACCTCCCAACCCCGAGGGGACCCGACAGGCCCGAAGGAATAGAAGAAGAGCTGGAG
7870 7880 7890 7900 7910 7920

I C G A L C L F S Y H R L R D L L L I V
S A E P C A S S A T T A * E T Y S * L *
L R S L V P L O L P P L E R L T L D C N
TCTGCGGAGCCTTGTGCTCTTCAGCTACCACCGCTTGAGAGACTTACTCTTGATTGTA
7990 8000 8010 8020 8030 8040

L O Y W S O E L K N S A V S L L N A T
S Y S I G V R N * R I V L L A C S M P O
P T V L E S G T K E * C C * L A O C H S
CCTACAGTATTGGAGTCAGGAACATAAGAATAGTGCTGTTAGCTTGCTCAATGCCACA
8110 8120 8130 8140 8150 8160

I R H I P R I R O G L E R I L L * D
L F A T Y L E E * D R A W K G F C Y K M
Y S P H T * K N K T G L G K D F A I R W
TATTCGCCACATACCTAGAAGAATAAGACAGGCTTGGAAAGGATTTTCTATAAGAT
8230 8240 8250 8260 8270 8280

S * A S S R A G G S S I S R P G K T W
R A E P A A D G V G A A S R D L E K H G
E L S O O O * G W E O H L E T W K N M E
AGCTGAGCCAGCAGCATGGGCTGGGAGCAGCATCTCGAGACCTGGAAAAACATGG
8350 8360 8370 8380 8390 8400

G G G G G F S S H T S G T F K T N D L
E E E V G F P V T P C V P L R P M T Y
R R R R R Y F J S H L R Y L * D O * L T
CGAGGAGGAGGCGGTTTCCAGTCACACCTCAGCTACCTTTAAGACCAATGACTTA
8470 8480 8490 8500 8510 8520

L P T K T B Y P * S V G L P H T R L L
15/15 B/L

Fig 19

10 20 30 40 50 60
 AAGCTTGCCT TGAGTGCTTC AAGTAGTGTC TCCCCGCTCTG TTGTGTGACT CTGGTAACTA
 70 80 90 100 110 120
 GAGATCCCTC AGACCCTTTT AGTCAGTGTC GAAAATCTCT AGCAGTGCCG CCCGAACAGG
 130 140 150 160 170 180
 GACTTGAAAG CGAAAGGGAA ACCAGAGGAG CTCTCTCCAC GCAGGACTCG GCTTGCTGAA
 190 200 210 220 230 240
 GCGGCGACGG CAAGAGGGCA GGGGAGGGCA CTGGTGAGTA CGCCAAAAAT TTTGACTAGC
 250 260 270 280 290 300
 GGAGGCTAGA AGGAGAGAGA TGGGTGCGAG AGCTCAGTA TTAAGCGGGG GAGAATTAGA
 310 320 330 340 350 360
 TCGATCGGAA AAAATTCTGT TAAGGCCAGG GGGAAAGAAA AAATATAAAT TAAACATAT
 370 380 390 400 410 420
 AGTATGGCCA AGCAGGGAGC TAGAAGGATT CGCTGTAAAT CCTGGCCTGT TAGAACAATC
 430 440 450 460 470 480
 AGAAGGCTGT AGACAAATAC TGGGACAGCT ACAACCATCC CTTCAGACAG GATCAGAAGA
 490 500 510 520 530 540
 ACTTAGATCA TTATATAATA CAGTAGCAAC CCTCTATTGT GTGCATCAAA GGATAGAGAT
 550 560 570 580 590 600
 AAAAGACACC AAGGAAGCTT TAGACAAGAT AGAGGAAGAG CAAAACAAAA GTAAGAAAAA
 610 620 630 640 650 660
 AGCACAGCAA GCAGCAGCTG ACACAGGACA CAGCAGCCAG GTCAGCCAAA ATTACCCAT
 670 680 690 700 710 720
 AGTGCAGAAC ATCCAGGGGC AAATGGTACA TCAGGCCATA TCACCTAGAA CTTTAAATGC
 730 740 750 760 770 780
 ATGGGTAAAA GTAGTAGAAG AGAAGGCTTT CAGCCCAGAA GTGATACCCA TGTTCACG
 790 800 810 820 830 840
 ATTATCAGAA GGAGCCACCC CACAAGATTT AAACACCATG CTAAACACAG TGGGGGGACA
 850 860 870 880 890 900
 TCAAGCAGCC ATGCAAAATGT TAAAAGAGAC CATCAATGAG GAAGCTGCAG AATGGGATAG
 910 920 930 940 950 960
 AGTGCATCCA GTGCATGCAG GGCCTATTGC ACCAGGCCAG ATGAGAGAAC CAAGGGGAAG
 970 980 990 1000 1010 1020
 TGACATAGCA GGAACACTA GTACCTTCA GGAACAAATA GGATGGATGA CAAATAATCC
 1030 1040 1050 1060 1070 1080
 ACCTATCCCA GTAGGAGAAA TTTATAAAG ATGGATAATC CTGGGATTAA ATAAAAATAGT
 1090 1100 1110 1120 1130 1140

AAATGTAT AGCCCTACCA GCATTCTGGA CATAAGACAA GGACCAAAAG AACCCTTTAG
 1150 1160 1170 1180 1190 1200
 AGACTATGTA GACCGGTTCT ATAAAACTCT AAGAGCCGAG CAAGCTTCAC AGGAGGTAAA
 1210 1220 1230 1240 1250 1260
 AAATTGGATG ACAGAAACCT TGTGGTCCA AAATGGAAC CCAGATTGTA AGACTATTTT
 1270 1280 1290 1300 1310 1320
 AAAAGCATTG GGACCAGCAG CTACACTAGA AGAAATGATG ACAGCATGTC AGGGAGTGGG
 1330 1340 1350 1360 1370 1380
 AGGACCCGGC CATAAGGCAA GAGTTTTGGC TGAAGCAATG AGCCAAGTAA CAAATTCAGC
 1390 1400 1410 1420 1430 1440
 TACCATAATG ATGCAAAGAG GCAATTTTAG GAACCAAGA AAGATTGTTA AGTGTTCAC
 1450 1460 1470 1480 1490 1500
 TTGTGGCAAA GAAGGGCACA TAGCCAGAAA TTGCAGGGCC CCTAGGAAAA AGGGCTGTTG
 1510 1520 1530 1540 1550 1560
 GAAATGTGGA AAGGAAGGAC ACCAAATGAA AGATTGTACT GAGAGACAGG CTAATTTTTT
 1570 1580 1590 1600 1610 1620
 AGGGAAGATC TGGCCTTCTT ACAAGGGAAG GCCAGGGAAT TTTCTTCAGA GCAGACCAGA
 1630 1640 1650 1660 1670 1680
 GCCAACAGCC CCACCAGAAG AGAGCTTCAG GTCTGGGGTA GAGACAAACA CTCCCTCTCA
 1690 1700 1710 1720 1730 1740
 GAAGCAGGAG CCGATAGACA AGGAACGTGA TCCTTTAACT TCCCTCAGAT CACTCTTTGG
 1750 1760 1770 1780 1790 1800
 CAACGACCCC TCGTCACAAT AAAGATAGGG GGGCAACTAA AGGAAGCTCT ATTAGATACA
 1810 1820 1830 1840 1850 1860
 GGAGCAGATG ATACAGTATT AGAAGAAATG AGTTTGCCAG GAAGATGGAA ACCAAAAATG
 1870 1880 1890 1900 1910 1920
 ATAGGGGGAA TTGGAGGTTT TATCAAAGTA AGACAGTATG ATCAGATACT CATAGAAATC
 1930 1940 1950 1960 1970 1980
 TGTGGACATA AAGCTATAGG TACAGTATTA GTAGGACCTA CACCTGTCAA CATAATTGGA
 1990 2000 2010 2020 2030 2040
 AGAAATCTGT TGACTCAGAT TGGTTGCACT TTAATTTTC CCATTAGTCC TATTGAAACT
 2050 2060 2070 2080 2090 2100
 GTACCACTAA AATTAAAGCC AGGAATGGAT GGCCCAAAAG TTAAACAATG GCCATTGACA
 2110 2120 2130 2140 2150 2160
 GAAGAAAAAA TAAAAGCATT AGTAGAAATT TGTACAGAAA TGGAAAAGGA AGGGAAAAAT
 2170 2180 2190 2200 2210 2220
 TCAAAAATTG GGCCTGAAAA TCCATACAAT ACTCCAGTAT TTGCCATAAA GAAAAAAGAC
 2230 2240 2250 2260 2270 2280
 AGTACTAAAT GGAGAAAATT AGTAGATTC AGAGAACTTA ATAAGAGAAC TCAAGACTTC
 2290 2300 2310 2320 2330 2340
 TGGGAAGTTC AATTAGGAAT ACCACATCCC GCAGGGTTAA AAAAGAAAAA ATCAGTAACA
 2350 2360 2370 2380 2390 2400

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GAGGAGGATG TGGGTGATGC ATATTTTTC A GTTCCCTTAG ATGAAGACTT CAGGAAGTAT

Fig 21

2410 2420 2430 2440 2450 2460
ACTGCATTTA CCATACCTAG TATAAACAAAT GAGACACCAG GGATTAGATA TCAGTACAAT

2470 2480 2490 2500 2510 2520
GTGCTTCCAC AGGGATGGAA AGGATCACCA GCAATATTCC AAAGTAGCAT GACAAAAATC

2530 2540 2550 2560 2570 2580
TTAGAGCCTT TTAGAAAACA AAATCCAGAC ATAGTTATCT ATCAATACAT GGATGATTG

2590 2600 2610 2620 2630 2640
TATGTAGGAT CTGACTTAGA AATAGGGCAG CATAGAACAA AAATAGAGGA GCTGAGACAA

2650 2660 2670 2680 2690 2700
CATCTGTTGA GGTGGGGACT TACCACACCA GACAAAAAAC ATCAGAAAGA ACCTCCATTG

2710 2720 2730 2740 2750 2760
CTTTGGATGG GTTATGAAC CCATCCTGAT AAATGGACAG TACAGCCTAT AGTGCTGCCA

2770 2780 2790 2800 2810 2820
GAAAAAGACA GCTGGACTGT CAATGACATA CAGAAGTAG TGGGAAAT GAATTGGGCA

2830 2840 2850 2860 2870 2880
AGTCAGATT ACCCAGGGAT TAAAGTAAG CAATTATGTA AACTCCTTAG AGGAACCAAA

2890 2900 2910 2920 2930 2940
GCACTAACAC AAGTAATACC ACTAACAGAA GAAGCAGAGC TAGAACTGGC AGAAAAACAGA

2950 2960 2970 2980 2990 3000
GACATTCTAA AAGAACCAGT ACATGGAGTG TATTATGACC CATCAAAAGA CTTAATAGCA

3010 3020 3030 3040 3050 3060
GAAATACAGA AGCAGGGGCA AGGCCAATGG ACATATCAAA TTTATCAAGA GCCATTTAAA

3070 3080 3090 3100 3110 3120
AATCTGAAAA CAGGAAAAATA TGCAAGAACG AGGGGTGCCC AACTAATGA TGTAATAACAA

3130 3140 3150 3160 3170 3180
TTAACAGAGG CAGTGCAAAA AATAACCACA GAAAGCATAG TAATATGGGG AAAGACTCCT

3190 3200 3210 3220 3230 3240
AAATTTAAAC TACCCATACA AAAGGAAACA TGGGAAACAT GGTGGACAGA GTATTGGCAA

3250 3260 3270 3280 3290 3300
GCCACCTGGA TTCCTGAGTG GGAGTTTGTG AATACCCCTC CTTTAGTGAA ATTATGGTAC

3310 3320 3330 3340 3350 3360
CAGTTAGAGA AAGAACCCAT AGTAGGAGCA GAAACGTTCT ATGTAGATGG GGCAGCTAGC

3370 3380 3390 3400 3410 3420
AGGGAGACTA AATTAGGAAA AGCAGGATAT GTTACTAATA GAGGAAGACA AAAAGTTGTC

3430 3440 3450 3460 3470 3480
ACCCTAACTG ACACAACAAA TCAGAAGACT GAGTTACAAG CAATTCATCT AGCTTTGCAG

3490 3500 3510 3520 3530 3540
GATTCGGGAT TAGAAGTAAA TATAGTAACA GACTCACAAT ATGCATTAGG AATCATTCAA

3550 3560 3570 3580 3590 3600
GCACAACCAG ATAAAAGTGA ATCAGAGTTA GTCAATCAAA TAATAGAGCA GTTAATAAAA

3610 3620 3630 3640 3650 3660

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3670 3680 3690 3700 3710 3720
 GTAGATAAAT TAGTCAGTGG TGGAAATCAGG AAAGTACTAT TTTTAGATGG AATAGATAAG
 3730 3740 3750 3760 3770 3780
 GCGCAAGATG AACATGAGAA ATATCACAGT AATTGGAGAG CAATGGCTAG TGATTTTAAC
 3790 3800 3810 3820 3830 3840
 CTGCCACCTG TAGTAGCAAA AGAAATAGTA GCCAGCTGTG ATAAATGTCA GCTAAAAGGA
 3850 3860 3870 3880 3890 3900
 GAAGCCATGC ATGGACAAGT AGACTGTAGT CCAGGAATAT GGCAACTAGA TTGTACACAT
 3910 3920 3930 3940 3950 3960
 TTAGAAGGAA AAGTTATCCT GGTAGCAGTT CATGTAGCCA GTGGATATAT AGAAGCAGAA
 3970 3980 3990 4000 4010 4020
 GTTATTCCAG CAGAAACAGG GCAGGAAACA GCATACTTTC TTTTAAATTT AGCAGGAAGA
 4030 4040 4050 4060 4070 4080
 TGGCCAGTAA AAACAATACA TACAGACAAT GGCAGCAATT TCACCAGTAC TACGGTTAAG
 4090 4100 4110 4120 4130 4140
 GCGGCTGTT GGTGGGCGGG AATCAAGCAG GAATTTGGAA TTCCCTACAA TCCCCAAAGT
 4150 4160 4170 4180 4190 4200
 CAAGGAGTAG TAGAATCTAT GAATAAAGAA TTAAGAAAAA TTATAGGCCA GGTAAAGAGT
 4210 4220 4230 4240 4250 4260
 CAGGCTGAAC ATCTTAAGAC AGCAGTACAA ATGGCAGTAT TCATCCACAA TTTTAAAGA
 4270 4280 4290 4300 4310 4320
 AAAGGGGGGA TTGGGGGGTA CAGTGCAGGG GAAAGAATAG TAGACATAAT AGCAACAGAC
 4330 4340 4350 4360 4370 4380
 ATACAACTA AAGAATTACA AAAACAAATT ACAAAAAATC AAAATTTTCG GGTATTATTAC
 4390 4400 4410 4420 4430 4440
 AGGGACAGCA GAGATCCACT TTGGAAGGA CCAGCAAAAGC TCCTCTGGAA AGGTGAAGGG
 4450 4460 4470 4480 4490 4500
 GCAGTAGTAA TACAAGATAA TAGTGACATA AAAGTAGTGC CAAGAAGAAA AGCAAGATC
 4510 4520 4530 4540 4550 4560
 ATTAGGGATT ATGGAAAACA GATGCCAGGT GATGATTGTG TGGCAAGTAG ACAGGATGAG
 4570 4580 4590 4600 4610 4620
 GATTAGAACA TGGAAAAGTT TAGTAAAAACA CCATATGTAT GTTTCAGGGA AAGCTAGGGG
 4630 4640 4650 4660 4670 4680
 ATGGTTTTAT AGACATCACT ATGAAAGCCC TCATCCAAGA ATAAGTTCAG AAGTACACAT
 4690 4700 4710 4720 4730 4740
 CCCACTAGGG GATGCTAGAT TGGTAATAAC AACATATTGG GGTCTGCATA CAGGAGAAAG
 4750 4760 4770 4780 4790 4800
 AGACTGGCAT CTGGGTCAGG GAGTCTCCAT AGAATGGAGG AAAAAGAGAT ATAGCACACA
 4810 4820 4830 4840 4850 4860
 AGTAGACCTT GAACTAGCAG ACCAACTAAT TCATCTGTAT TACTTTGACT GTTTTTCAGA
 4870 4880 4890 4900 4910 4920

Fig 22

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CTCTGCTATA AGAAAGGCTT TATTAGGACA TATAGTTAGC CCTAGGTGTG AATATCAAGC

4930 4940 4950 4960 4970 4980
AGGACATAAC AAGGTAGGAT CTCTACAATA CTGGGCACTA GCAGCATTA TAACACCAAA4990 5000 5010 5020 5030 5040
AAAGATAAAG CCACCTTTGC CTAGTGTTAC GAAACTGACA GAGGATAGAT GGAACAAGCC5050 5060 5070 5080 5090 5100
CCAGAAGACC AAGGGCCACA GAGGGAGCCA CACAATCAAT GGACACTAGA GCTTTTAGAG5110 5120 5130 5140 5150 5160
GAGCTTAAGA ATGAAGCTGT TAGACATTTT CCTAGGATTT GCCTCCATGG CTTAGGGCAA5170 5180 5190 5200 5210 5220
CATATCTATG AAACCTTATGG GGATACCTGG GCAGGAGTGG AAGCCATAAT AAGAATTCTG5230 5240 5250 5260 5270 5280
CAACAACCTG TGTATTATCCA TTTCAGAAAT GGGTGTGAC ATAGCAGAAT AGGCGTTACT5290 5300 5310 5320 5330 5340
CAACAGAGGA GAGCAAGAAA TGGAGCCAGT AGATCCTAGA CTAGAGCCCT GGAAGCATCC5350 5360 5370 5380 5390 5400
AGGAAGTCAG CCTAAACTG CTTGTACCAC TTGCTATTGT AAAAAGTGT GCTTTTCATTG5410 5420 5430 5440 5450 5460
CCAAGTTTGT TTCACAACAA AAGCCTTAGG CATCTCCTAT GGCAGGAAGA AGCGGAGACA5470 5480 5490 5500 5510 5520
GGGACGAAGA CCTCCTCAAG GCAGTCAGAC TCATCAAGTT TCTCTATCAA AGCAGTAAGT5530 5540 5550 5560 5570 5580
AGTACATGTA ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG CAATAATAAT5590 5600 5610 5620 5630 5640
AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATATAGG AAAATATTAA GACAAAGAAA5650 5660 5670 5680 5690 5700
AATAGACAGG TTAATTGATA GACTAATAGA AAGAGCAGAA GACAGTGGCA ATGAGAGTCA5710 5720 5730 5740 5750 5760
AGGACAAATA TCAGCACTTG TGGAGATGGG GGTGGAATG GGGCACCATG CTCCTTGGGA5770 5780 5790 5800 5810 5820
TATTGATGAT CTGTAGTGCT ACAGAAAAAT TGTGGGTCAC AGTCTATTAT GGGGTACCTG5830 5840 5850 5860 5870 5880
TGTGGAAGGA ACCAACCACC ACTCTATTTT GTGCATCAGA TGCTAAAGCA TATGATACAG5890 5900 5910 5920 5930 5940
AGGTACATAA TGTTTGGGCC ACACATGCCT GTGTACCCAC AGACCCCAAC CCACAAGAAG5950 5960 5970 5980 5990 6000
TAGTATTGGT AAATGTGACA GAAAATTTTA ACATGTGGAA AAATGACATG GTAGAACAGA6010 6020 6030 6040 6050 6060
TGCATGAGGA TATAATCAGT TTATGGGATC AAAGCCTAAA GCCATGTGTA AAATTAACCC6070 6080 6090 6100 6110 6120
CACTCTGTGT TAGTTTAAAG TGCATGATT TGGGGAATGC TACTAATACC AATAGTAGTA

6130 6140 6150 6160 6170 6180

ATACCAATAG TAGTAGCGGG GAAATGATGA TGGAGAAAAG AGAGATAAAA AACTGCTCTT
 6170 6200 6210 6220 6230 6240
 TCAATATCAG CACAAGCTTA AGAGGTAAGG TGCAGAAAGA ATATGCATTT TTTTATAAAC
 6250 6260 6270 6280 6290 6300
 TTGATATAAT ACCAATAGAT AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT
 6310 6320 6330 6340 6350 6360
 CAGTCATTAC ACAGGCCTGT CCAAAGGTAT CCTTTGAGCC AATTCCCATATA CATTATTGTG
 6370 6380 6390 6400 6410 6420
 CCCCCGCTGG TTTTGCGATT CTAAAATGTA ATAATAGAC GTTCAATGGA ACAGGACCAT
 6430 6440 6450 6460 6470 6480
 GTACAAATGT CAGCACAGTA CAATGTACAC ATGGAATTAG GCCAGTAGTA TCAACTCAAC
 6490 6500 6510 6520 6530 6540
 TGCTGTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTTACAG
 6550 6560 6570 6580 6590 6600
 ACAATGCTAA AACCATAATA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC
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 CCAACAACAA TACAAGAAAA AGTATCCGTA TCCAGAGGGG ACCAGGGAGA GCATTGTGTA
 6670 6680 6690 6700 6710 6720
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 ATGCCACTTT AAAACAGATA GCTAGCAAAT TAAGAGAACA ATTTGGAAT AATAAAACAA
 6790 6800 6810 6820 6830 6840
 TAATCTTTAA GCAATCTCA GGAGGGGACC CAGAAATTGT AAGGCACAGT TTTAATTGTG
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 CTTGGAGTAC TGAAGGCTCA AATAACACTG AAGGAAGTCA CACAATCACA CTCCCATGCA
 6970 6980 6990 7000 7010 7020
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 7030 7040 7050 7060 7070 7080
 TCAGCGGACA AATTAGATGT TCATCAAATA TTACAGGGCT GCTATTAACA AGAGATGGTG
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 GTAATAACAA CAATGGGTCC GAGATCTTCA GACCTGGAGG AGGAGATATG AGGGACAATT
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 GGAGAAGTGA ATTATATAAA TATAAAGTAG TAAAAATTCA ACCATTAGGA GTAGCACCCA
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 CCAAGGCAAA GAGAAGAGTG GTGCAGAGAG AAAAAAGAGC AGTGGGAATA GGAGCTTTGT
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 TCCTTGGGTT CTTGGGAGCA GCAGGAAGCA CTATGGGGCC ACGGTCAATG ACGCTGACGG
 7330 7340 7350 7360 7370 7380
 TACAGGCCAG ACAATTATTG TCTGGTATAG TGCAGCAGCA GAACAATTTG CTGAGGGCTA
 7390 7400 7410 7420 7430 7440

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TTGAGGCGCA ACACCATCTG TTGCAACTCA CAGTCTGGGG CATCAAGCAG CTCCAGGCAA

7450 7440 7470 7430 7490 7500
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7570 7580 7590 7600 7610 7620
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7630 7640 7650 7660 7670 7680
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7690 7700 7710 7720 7730 7740
AATTATTGGA ATTAGATAAA TGGGCAAGTT TGTGGAATTG GTTTAACATA ACAAATTGGC

7750 7760 7770 7780 7790 7800
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7990 8000 8010 8020 8030 8040
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8170 8180 8190 8200 8210 8220
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8290 8300 8310 8320 8330 8340
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8350 8360 8370 8380 8390 8400
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8590 8600 8610 8620 8630 8640
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8650 8660 8670 8680 8690 8700

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8770 8780 8790 8800 8810 8820
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9070 9080 9090 9100 0 0
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